

Remarks

The Office Action of August 17, 2004, has been carefully considered. Reconsideration of this application, as amended, is respectfully requested. Applicants acknowledge with appreciation the allowable subject matter.

Claims 9, 10, 20, and 20 are allowed.

Claims 1-5 and 13-16 stand rejected under 35 U.S.C. 102(b) as being anticipated Yoo et al. (U.S. Patent 6,289,184). Yoo et al. teaches an apparatus for measuring the concentration of developer in a liquid printer, the apparatus includes a housing, a developer film forming device installed in the housing for forming a developer film, and a sensing device including a light source unit for emitting colored light corresponding to a range of wavelengths for which the light transmissivity is relatively low to a developer film of a selected color developer, and a photodetector installed corresponding to the light source unit and receiving the light emitted by the light source unit and transmitted through the developer film. Thus, a thin developer film is formed and the concentration of developer is measured by emitting light in a range of wavelengths for which the selected color developer has a relatively low light transmissivity to the developer film. The affect by the toner mixed with other color is relatively less and the concentration of developer can be measured close to the actual concentration although the developer is contaminated. Yoo et al. does not teach a sump for storing a quantity of dry developer material comprised of toner of a first color and carrier material, a member for transporting developer material from said sump, said sump including a viewing window, in communication with developer material, in said sump, an optical sensor, device for measuring reflected light off developer material, and means for generating a signal indicative of the toner concentration in said sump, said optical sensor including a light source and a light detector, said

light source emitting light at a first predefined wavelength based upon said toner of said first color. So accordingly, the present invention is not anticipated by Yoo et al.

Claims 6 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo et al. in view of Fujita et al. (U.S. Patent 4,273,843). Fujita et al. teaches an apparatus and method for detecting the concentration of toner in a multi-component developer of an electrophotographic copying machine utilizes a source of illumination for projecting light onto the developer, and a receiving element for measuring the intensity of light of a predetermined wavelength reflected from the developer, the predetermined wavelength being of a value selected to maximize the intensity of reflected light in response to variations in toner concentration substantially independently of the reflection characteristics of the developer. The amount or concentration of toner in the developer is varied-by the addition of suitable amounts of toner-with the measured intensity of the received reflection of light of the predetermined wavelength. Fujita et al. does not teach a sump for storing a quantity of dry developer material comprised of toner of a first color and carrier material, a member for transporting developer material from said sump, said sump including a viewing window, in communication with developer material, in said sump, an optical sensor, device for measuring reflected light off developer material, and means for generating a signal indicative of the toner concentration in said sump, said optical sensor including a light source and a light detector, said light source emitting light at a first predefined wavelength based upon said toner of said first color.

Claims 7, 8, 12, 18, and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo et al. in view of Fujii (U.S. Patent 5,229,821). Fujii teaches an image forming apparatus is provided with a detachable process cartridge having an electrophotographic photoconductive drum and a

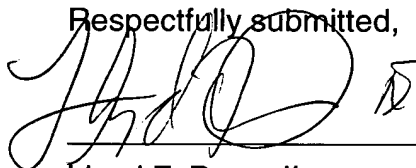
plurality of developing units. Each of the developing units has a signal generating device for generating a signal corresponding to the amount of toner in the developing unit, and an output signal of the signal generating device is transmitted to a toner amount discriminating circuit mounted in the body of the image forming apparatus through a common line. Fujii does not teach a sump for storing a quantity of dry developer material comprised of toner of a first color and carrier material, a member for transporting developer material from said sump, said sump including a viewing window, in communication with developer material, in said sump, an optical sensor, device for measuring reflected light off developer material, and means for generating a signal indicative of the toner concentration in said sump, said optical sensor including a light source and a light detector, said light source emitting light at a first predefined wavelength based upon said toner of said first color.

Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo et al. in view of Fujii and further in view of Reid et al. (U.S. Patent 4,141,645). Reid et al. does not teach a sump for storing a quantity of dry developer material comprised of toner of a first color and carrier material, a member for transporting developer material from said sump, said sump including a viewing window, in communication with developer material, in said sump, an optical sensor, device for measuring reflected light off developer material, and means for generating a signal indicative of the toner concentration in said sump, said optical sensor including a light source and a light detector, said light source emitting light at a first predefined wavelength based upon said toner of said first color. It is respectfully submitted that the applied references do not teach or suggest the present invention either individually or collectively.

No additional fee is believed to be required for this amendment. However, the undersigned Xerox Corporation attorney (or agent) hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025. This also constitutes a request for any needed extension of time and authorization to charge all fees therefor to Xerox Corporation Deposit Account No. 24-0025.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby directed to call Lloyd F. Bean, II, at Telephone Number 585-423-4520, Rochester, New York.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'LFB', is written over a horizontal line.

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LFB/cw

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AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings include changes to Figures 1 and 2. These sheets, which includes Figures 1 and 2, replaces the original sheets Figures 1 and 2.

Attachment: Replacement Sheet